This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): An automatic flowcharting method for diagrammatically representing a multi-nodal process comprising processing operations and decision operations, said method comprising:

(a) reading an input file including data representing a multi-nodal process comprising processing operations and decision operations;

[[(a)]] (b) converting processing operations and decision operations of said multi-nodal process from said input file into a data structure;

[[(b)]] (c) analyzing said data structure for identifying a first group of processing operations that appear once in said data structure, and for identifying a second group of processing operations that are associated with two or more decision operations in said data structure;

[[(c)]] (d) traversing said data structure to generate an ordered sequence of processing operations for visual representation; and

[[(d)]] (e) generating a diagrammatic representation of said ordered sequence including orienting successive processing operations in a vertical dimension and associating attributes to each processing operation of said processing operations according to their identified group while offsetting each successive processing operation in a horizontal dimension, and linking each processing operation of said second group to a further processing step of said processing steps according to a decision operation of said two or more decision operations.

Claim 2 (Original): The automatic flowcharting method according to Claim 1, said method further comprising the step of:

associating a first visual attribute to said processing operations in said first selected group and a second visual attribute to said processing operations in said second selected group.

Claim 3 (Original): The automatic flowcharting method according to Claim 2, wherein said first visual attribute is a first color.

Claim 4 (Currently Amended): The automatic flowcharting method according to Claim 2, wherein said second visual attribute [[s]] is a second color.

Claim 5 (Original): The automatic flowcharting method according to Claim 1, said analyzing step further comprising:

identifying a third group of processing operations that repeatedly appear in said data structure.

Claim 6 (Original): The automatic flowcharting method according to Claim 5, said analyzing step further comprising:

associating a third visual attribute to said processing operations in said third group.

Claim 7 (Original): The automatic flowcharting method according to Claim 6, wherein said third visual attribute is a third color.

Claim 8 (Original): The automatic flowcharting method according to Claim 1, said method further comprising a step of:

reading an input file containing said processing operations and said decision operations for said multi-nodal process, said processing operations and said decision operations being arranged into a plurality of records each of said plurality of records containing a first processing operation, a second processing operation and a decision operation.

Claim 9 (Original): The automatic flowcharting method according to Claim 8, said method further comprising a step of:

automatically exporting said processing operations and said decision operations for said multi-nodal process from a database into said input file.

Claim 10 (Canceled).

Claim 11 (Original): The automatic flowcharting method according to Claim 1, wherein the linking of each processing operation of said second group includes aligning said processing operation to said further processing step in said vertical dimension.

Claim 12 (Original): The automatic flowcharting method according to Claim 1, wherein said each successive processing operation is offset in said horizontal dimension relative to an immediate prior processing operation.

Claim 13 (Original): The automatic flowcharting method according to Claim 1, said method further comprising a step of:

writing an output file for said generated diagrammatic representation of said multi-nodal process.

Claim 14 (Original): The automatic flowcharting method according to Claim 13, wherein said output file is written in a markup language for presentation in a web-enabled browser.

Claim 15 (Original): The automatic flowcharting method according to Claim 14 wherein said output file is transmitted over a communications network.

Claim 16 (Original): The automatic flowcharting method according to Claim 15 wherein said communications network is one selected from the group comprising:

an Intranet, and

the Internet.

Claim 17 (Currently Amended): An automatic flowcharting system for diagrammatically representing a multi-nodal process comprising processing operations and decision operations in a client-server environment, said system comprising:

(a) a server interconnected via a communications network to a client, said server including:

(i)a mechanism for reading an input file including data representing a multi-nodal process comprising processing operations and decision operations;

[[(i)]] (ii) converting processing operations and decision operations of said multi-nodal process into a data structure;

[[(ii)]] (iii) a mechanism for analyzing said data structure for identifying a first group of processing operations that appear once in said data structure, and for identifying a second group of processing operations that are associated with two or more decision operations in said data structure; and

[[(iii)]] (iv) a mechanism for traversing said data structure to generate ~~and~~ an ordered sequence of processing operations for visual representation;

[[(iv)]] (v) a mechanism for generating a diagrammatic representation of said ordered sequence including orienting said processing operations in a vertical dimension and associating attributes to each processing operation of said processing operations according to their identified group while offsetting each successive processing operation in a horizontal dimension, and linking each processing operation of said second group to a further processing step of said processing steps according to a decision operation of said two or more decision operations;

(b) said client for receiving said generated diagrammatic representation of said multi-nodal process via said communications network in a form for presentation by said client.

Claim 18 (Currently Amended): The automatic flowcharting system according to Claim17, said server further including:

a mechanism for associating a first visual attribute [[o]] of said processing operations in said first group and a second visual attribute to said processing operations in said second group.

Claim 19 (Original): The automatic flowcharting system according to Claim 18, wherein said first visual attribute is a first color.

Claim 20 (Original): The automatic flowcharting system according to Claim 18, wherein said

second visual attribute is a second color.

Claim 21 (Original): The automatic flowcharting system according to Claim 17, said mechanism for analyzing further comprising:

a mechanism for identifying a third group of processing operations that repeatedly appear in said data structure.

Claim 22 (Original): The automatic flowcharting system according to Claim 21, said mechanism for analyzing further comprising:

a mechanism for associating a third visual attribute to said third group of processing operations.

Claim 23(Original): The automatic flowcharting system according to Claim 22, wherein said third visual attribute is a third color.

Claim 24 (Original): The automatic flowcharting system according to Claim 17, said server further including:

a mechanism for reading an input file containing said processing operations and said decision operations for said multi-nodal process, said processing operations and said decision operations being arranged into a plurality of records each of said plurality of records containing a first processing operation, a second processing operation and a decision operation.

25 (Original): The automatic flowcharting system according to Claim 24, said server further including:

a mechanism for automatically exporting said processing operations and said decision operations for said multi-nodal process from a database into said input file.

Claim 26 (Canceled).

Claim 27(Original): The automatic flowcharting system according to Claim 17, wherein in the mechanism for generating, each processing operation of said second selected group is vertically

linked to said further processing step of said processing steps.

Claim 28(Original): The automatic flowcharting system according to Claim 17, said mechanism for generating further comprising:

a mechanism for determining a horizontal indentation for each successive processing operation of said processing operations.

Claim 29 (Original): The automatic flowcharting system according to Claim 17, said server further including:

a mechanism for writing an output file of said generated diagrammatic representation of said multi-nodal process.

Claim 30 (Original): The automatic flowcharting system according to Claim 28, wherein said output file is written in a markup language for presentation in a web-enabled browser by said client.

Claim 31 (Original): The automatic flowcharting system according to Claim 30, wherein said output file is transmitted over said communications network.

Claim 32 (Original): The automatic flowcharting method according to Claim 31, wherein said communications network is one selected from the group comprising:

an Intranet, and

the Internet.

Claim 33 (Currently Amended): A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform an automatic flowcharting method for diagrammatically representing a multi-nodal process comprising processing operations and decision operations, said method comprising:

(a) reading an input file including data representing a multi-nodal process comprising processing operations and decision operations;

[[(a)]] (b) converting processing operations and decision operations of said multi-~~modal~~ nodal process into a data structure;

[[(b)]] (c) analyzing said data structure for identifying a first group of processing operations that appear once in said data structure, and for identifying a second group of processing operations that are associated with two or more decision operations in said data structure; and

[[(c)]] (d) traversing said data structure to generate an ordered sequence of processing operations for visual representation;

[[(d)]] (e) generating a diagrammatic representation of said ordered sequence including orienting said processing operations [[of]] in a vertical dimension and associating attributes to each processing operation of said processing operations according to their identified group while offsetting each successive processing operation of said processing operations in a horizontal dimension, and linking each processing operation of said second group to a further processing operation of said processing operations according to a decision operation of said two or more decision operations.

Claim 34 (Original): The program storage device according to Claim 33, said method further comprising the step of:

associating a first visual attribute to said processing operations in said first group and a second visual attribute to said processing operations in said second group.

Claim 35 (Original): The program storage device according to Claim 34, wherein said first visual attribute is a first color.

Claim 36 (Original): The program storage device according to Claim 34, wherein said second visual attribute is a second color.

Claim 37 (Original): The program storage device according to Claim 33, said analyzing step further comprising:

identifying a third group of processing operations that repeatedly appear in said data structure.

Claim 38 (Currently Amended): The program storage device according to Claim 37, said analyzing step further comprising:

associating a third visual attribute to said third group of processing operations.

Claim 39 (Original): The program storage device according to Claim 38, wherein said third visual attribute is a third color

Claim 40 (Original): The program storage device according to Claim 33, said method further comprising a step of:

reading an input file containing said processing operations and said decision operations for said multi-nodal process, said processing operations and said decision operations being arranged into a plurality of records each of said plurality of records containing a first processing operation, a second processing operation and a decision operation.

Claim 41 (Original): The program storage device according to Claim 40, said method further comprising a step of:

automatically exporting said processing operations and said decision operations for said multi-nodal process from a database into said input file.

Claim 42 (Canceled).

Claim 43 (Original): The program storage device according to Claim 33, wherein the linking of each processing operation of said second group includes visually aligning said processing operation in said vertical dimension to said further processing step.

Claim 44 (Original): The program storage device according to Claim 33, wherein said each successive processing operation is offset in said horizontal dimension relative to an immediate prior processing operation.

Claim 45 (Original): The program storage device according to Claim 33, said method further comprising a step of:

writing an output file of said generated diagrammatic representation of said multi-nodal process.

Claim 46 (Original): The program storage device according to Claim 45, wherein said output file is written in a markup language for presentation in a web-enabled browser.

Claim 47 (Original): The program storage device according to Claim 46, wherein said output file is transmitted over a communications network.

Claim 48 (Original): The program storage device according to Claim 47, wherein said communications network is one selected from the group comprising:

an Intranet, and

the Internet.